

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Joshua J. Higgins

GENERAL INFORMATION:

Name:	Wacker Polymer Systems, Spray Dry Plant
Address:	412 North Main Street Calvert City, KY 42029
Date application received:	November 3, 2004
SIC/Source description:	2821, Plastic Materials, Synthetic Resins, and Nonvulcanizable Elastomers
Source ID #:	21-157-00050
Source A.I. #:	39186
Activity #:	APE20040001
Permit number:	V-06-001

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

**EMISSIONS SUMMARY:**

Pollutant	Actual (tpy) From 2004 Inventory	Potential (tpy)
PM/PM <sub>10</sub>	6.39	17.43
VOC	11.08	38.46
Single HAPs		
Methanol	7.40	32.00
Vinyl Acetate	3.68	6.46
Source wide HAPs	11.08	38.46

**SOURCE DESCRIPTION:**

The Spray Dry Plant consists of 2 process lines, constructed in 1987 and 1995, which produce a dried emulsion product. The dried emulsion is made by mixing wet emulsion from the Air Products Emulsion Plant, PVOH from the Air Products PVOH Plant, water and some additives batch-wise in tanks then continuously feeding the solution into the Spray Dry Tower which dries the solution to a powder. The spray dried powder is mixed with a clay filler and processed through a product-recovery baghouse, product filter, screener, and silo before being bagged. Both lines have identical equipment except that the second process line has 2 recycle bins—one for recycled product and one for additives.

Pollutants that are emitted from this source are methanol and vinyl acetate, which are VOCs and HAPs, and particulate.

The Spray Dry Plant was part of Air Products and Chemicals, Inc. (21-157-00009) and ownership was transferred to Wacker Polymer Systems in 1998. This is a renewal of Wacker Polymer System's initial Title V permit, V-97-057, issued April 12, 2000.

**EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

None.

**OPERATIONAL FLEXIBILITY:**

None.